What Are the Arguments against Mind-Brain Dualism?

Mind-brain dualism generally holds that mental events are non-physical and that they causally interact with physical events (Mills 1996, 105). A paradigmatic case of the doctrine is René Descartes’s interactionist substance dualism (Descartes 1996, 16-23; Descartes 1996, 50-62; Heil and Robb 2013; Kim 2011, 32-5). According to his view, minds and bodies are completely distinct kinds of substance—on the one hand, bodies are spatially extended ones and are not capable of feeling or thinking; but on the other hand, minds are non-spatial, feeling and thinking ones—but they causally influence each other (Bennett 2007, 318-22; Heil and Robb 2013; Kim 2011, 32-5). There are two clear issues (Fodor 1994, 25; Mills 1996, 105): the first is the conceptual difficulty in describing how these radically different entities could actually interact; and the second is that the dualist assumption is inconsistent with some premises of the empirically well-established causal argument for physicalism, a theory claiming that the mental is physical (Brewer and Crane 1995, 212; Charles 1992, 265; Crane and Mellor 1990, 185-7; Pettit 1993, 213-23).

The aim of this essay is to explain and assess the causal argument for physicalism against mind-brain dualism. The paper is divided into three parts: the first outlines a structure of the causal argument; the second evaluates the argument; and in the final section, I shall conclude that some premises of the causal argument are problematic, and hence the argument cannot be easily offered to criticise mind-brain dualism.

It is commonly accepted that the causal argument for physicalism consists of three crucial premises (Papineau 2002, 17-8). The first is what is known as the ‘principle of
mental influence’ (Papineau 1993, 22) (MI for short), holding that ‘[e]very mental event causes some physical effect’ (Papineau 1993, 22). The second is a doctrine, which David Papineau calls the ‘completeness of physics’ (Papineau 1993, 16) (CP for short). It considers physics to be complete, in a sense that ‘all physical events are determined, or have their chances determined, by prior physical events according to physical laws’ (Papineau 1993, 16) and hence claims that all physical effects have sufficient physical causes which are enough to bring those effects about (Crane 2001, 49). The third supposes that ‘mental and physical causes do not overdetermine their physical effects’ (Crane 2001, 49): this is the principle of no overdetermination (NO for short). In short, a physicalist is then motivated to argue that these three premises entail the statement that ‘all physical effects are due to physical causes, and thus that anything having physical effects must be physical’ (Papineau and Spurrett 1999, 25)—this is the causal argument for physicalism, which imposes a serious challenge to mind-brain dualism.

In spite of the prima facie plausibility of the causal argument for physicalism, it still is not clear why it should be believed, and the following sections therefore focus on further examinations to each premise—namely, the MI, CP and NO.

Firstly, although the MI is critically dependent on what the word cause actually means, the principle does not provide any direct explanation about kinds of things that can feature as causes (Papineau 2002, 18-9). There seem to be at least two candidates: the one is that the causes are facts, or instantiations of properties; and the other is that they are events, or basic particulars, which are abstracted from any given mental or physical properties that they have (Papineau 2002, 19). On the one hand, if one chooses the former that the causes are instantiations of properties by concrete particulars (Kim 1993, 170; Kim 1973, 235; Schneider 2015), then, because it follows that mental properties—being in pain, for instance—are identical with physical properties—having a certain neurophysiological feature—and thus that mental facts are identical with physical facts, the causal argument requires that these two facts cannot be identical unless the properties that they involve also are identical (Papineau 2002, 19). On the other hand, nevertheless, if one chooses the latter that the causes are basic particulars (Davidson 2001, 187), then it is told only that the mental and physical properties are instantiated in the same basic particular and not that these properties
themselves are identical (Papineau 2002, 19). The problem here is that the causal argument may lose its explanatory power when the term cause is defined as an event or basic particular. An apparent solution to the issue for the proponent of the MI simply is to abandon the latter conception and to identify the causes as facts or instantiations of properties. Nonetheless, I shall still find this claim for property identity between the mental and physical problematic, since it is so vague that it could not appropriately designate which mental properties are exactly identical to which physical properties. In response, some proponents of the MI may argue that what the premise says indeed only is that each mental property must be identical with some physical properties and that the MI does not aim to demonstrate any precise identification between them (Papineau 2002, 20). To sum up, the issue of the ambiguous meaning of the causes in the MI can be resolved, if they are defined as facts or instantiations of properties, and there still is a room to maintain the premise.

Secondly, one of the central difficulties in defending the CP is an obvious dilemma about what the term ‘physics’ means in the assumption (Papineau 1993, 29), and this problem is widely known as ‘Hempel’s dilemma’ (Stoljar 2009). A sketch of the trouble is this: if a defender of the CP considers ‘physics’ to be contemporary physics, then such current physics is not adequate at all in certain respects, and ‘in particular in failing to identify all the antecedents for certain physical effects’ (Papineau 1993, 29); and even if it defines ‘physics’ as some ideal future physics, then it is uncertain whether physical categories, which will be assumed by such physics, will be capable of sufficing for complete explanations of all physical effects (Papineau 1993, 29). In response to this objection, Papineau, a prominent defender of the CP, argues that a possible way out of this dilemma is to identify ‘physics’ purely in terms of completeness, and to avoid any contentious suppositions about contemporary or future ideal physics (Crane 1991, 34; Papineau 1993, 29-32; Papineau 1990, 66-71). He then proposes that, for the purposes of the argument, ‘we simply define ‘physics’ as the science of whatever categories are needed to give full explanations for all physical effects’ (Papineau 1993, 29-30). Whilst Papineau attempts to give a solution to the problem, some of his opponents seem to be unconvinced. Tim Crane, for example, claims that Papineau’s conception of physical science, what Crane labels ‘PHYSICS’, does not fully explain why it will not incorporate the mental (Crane 1991, 35). Crane
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states that PHYSICS will be a science of all the laws and properties that are required to describe paradigmatically physical effects (Crane 1991, 35). If the CP is identified in terms of PHYSICS, then the CP implies that all paradigmatically physical events are fully determined by other PHYSICAL events according to PHYSICAL laws—because PHYSICAL events are events which fall under PHYSICAL laws; PHYSICAL laws are laws that incorporate PHYSICAL properties; and PHYSICAL properties are properties that are needed for a complete set of laws which cover paradigmatically physical effects (Crane 1991, 35). Although the CP thus is true by definition if it is understood in terms of PHYSICS, he argues that this does not mean that the CP immediately rules out the possibility of mental laws and properties being PHYSICAL (Crane 1991, 35). In short, Crane’s objection to Papineau’s characterisation of the CP, according to which PHYSICS is complete, is trivial and may undermine his argument itself (Crane 1991, 35; Papineau 1991, 37-40).

Thirdly, the last premise of the causal argument for physicalism, which is based on the NO, often is a popular target of an opponent’s criticism (Sturgeon 1998, 411). The distinctive feature of the premise of course is the denial of causal overdetermination, but perspectives differ over whether overdetermination just does not occur or cannot happen, even amongst the defenders of the NO (Brewer and Crane 1995, 215; Sider 2003, 719-26). Jaegwon Kim, for instance, argues that the idea that the ‘mental cause and the physical cause are each an independent sufficient cause of the physical effect’ (Kim 1993, 280) suggests that the ‘physical effect is overdetermined’ (Kim 1993, 281), but this picture is simply ‘absurd’ (Kim 1993, 281); and Christopher Peacocke more cautiously says that the possibility of such overdetermination is what ‘we ordinarily takes to be false, and it is not clear why we should change the belief” (Peacocke 1979, 135). However, Crane, in response, claims that it is not easy to deny the metaphysical phenomenon and rather there are apparently possible cases in which overdetermination happens (Brewer and Crane 1995, 215). He offers an occurrence of the assassination of a tyrant by two assassins: each one shoots the tyrant at the same time and so is a cause of the death of the tyrant; the assassination is given in such a way in which the shootings are independent, and this means that either would have killed the tyrant even if the other assassin had failed to do so; and the tyrant’s death is hence overdetermined by the shootings (Crane 2001, 49). This objection from the ‘genuine
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case of overdetermination’ (Kim 2011, 216) challenges the defenders of the NO, but there still is a solution to avoid it—they can believe in the counterfactual account of causation, which holds that ‘one event causes another just in case, if (contrary to the facts) the former had not occurred, the latter would have not occurred’ (Kim, Korman and Sosa 2012, 347). If the account is applied to Crane’s example, then the counterfactual analysis of causation entails that neither the assassin’s shot can be a cause of the death of the tyrant, because, of neither shooting is it true that if it had not been done, then the tyrant’s death would have never happened (Crane 2001, 49). In this instance, those who support can thus conclude that, if the counterfactual analysis is true, then causal overdetermination like that in the case cannot actually occur (Crane 2001, 49-59), but this course of the argument is not entirely sufficient to secure the NO. For example, Eugene Mills appeals to the counterfactual account of causation for defending the mental-physical overdetermination as a route for mind-brain dualism to take (Heil and Robb 2013; Mills 1996, 105). He states that causal overdetermination is plausible, if, for any behavioural effect \( B \), both a mental cause \( M \) and a physical one \( P \) satisfy the following counterfactual conditionals: if \( M \) had happened in the absence of \( P \), then \( B \) would have still happened; and if \( P \) had happened in the absence of \( M \), then \( B \) would have still happened. Mills thus claims that, if the dualist can reasonably argue that both of the conditionals are true, then this will make a strong \textit{prima facie} case for overdetermination (Heil and Robb 2013; Mills 1996, 106-12). In other words, Crane’s and Mills’s critiques against the defenders of the NO show that the possibility of overdetermination cannot be immediately rejected, and leave the important problem in the metaphysics of causation.

In conclusion, it is now evident that the premises of the causal argument for physicalism to against mind-brain dualism, especially the CP and the NO, have some critical drawbacks and issues: the first trouble is that the CP faces a serious dilemma due to its ambiguous designation of how the word ‘physics’ should be understood—this implies that the defenders of the CP cannot simply rule out the fact that the mental can be the PHYSICAL; and the second concern is that the NO is inconsistent with the metaphysical possibility that there are a number of genuine instances of overdetermination, and that the counterfactual analysis of causation to respond to the
objection does not always work and it can rather become a philosophical device to motivate the mind-brain dualist’s argument. These consequences of the examinations of the causal argument suggest that it cannot be easily offered as a counter-argument against mind-brain dualism and that further defences and supports are clearly required.

(2042 words)
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Explain Disjunctivism and Outline Its Philosophical Advantages and Disadvantages.

It is commonly accepted that a central debate in contemporary philosophy of perception concerns the disjunctive theory of perceptual experience (Byrne and Logue 2009, vii; Crane 2011). Primarily inspired by the works of J. L. Austin (1962) and J. M. Hinton (1967a; 1967b), but often unshared into the mainstreams by Paul Snowdon (2008; 2005), John McDowell (2008; 1998; 1996; 1988) and M. G. F. Martin, a number of different approaches are developed under the disjunctivist label (Soteriou 2014). One of the sophisticated accounts is Martin’s ‘phenomenal disjunctivism’ (Haddock and Macpherson 2008, 13), which, not exclusively but predominantly, investigates the nature of the phenomenology of perception (Haddock and Macpherson 2008, 13).

The aim of this essay is to explain disjunctivism and outline its philosophical advantages and disadvantages. The paper is divided into three parts: the first addresses two tasks—making two preliminary remarks that are necessary to capture a core of disjunctivism and expounding Martin’s phenomenal disjunctivism; the second explores its philosophical advantages and disadvantages; and in the final section, I shall conclude that, although Martin’s phenomenal disjunctivism has certain strengths, the theory itself seems to be rather philosophically problematic.

Firstly, I shall make two preliminary remarks that are necessary to capture a core of disjunctivism. The first is about a philosophical assumption that perceptual experiences can be divided into the following three broad categories: a veridical perception, illusion and hallucination (Soteriou 2014). A case of perception is veridical, or ‘fully successful’
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(Fish 2010, 3), if and only if an ‘object is seen and seen correctly or “as it is”’ (Fish 2010, 3); that is illusionary if and only if a ‘physical object is actually perceived, but … that object perpetually appears other than it really is, for whatever reason’ (Smith 2002, 23); and that is hallucinatory if and only if ‘it seems to the subject as though something is seen but … in fact nothing is seen’ (Fish 2010, 3). The second is about what William Fish calls the ‘Common Factor Principle’ (Fish 2010, 4) (CFP for short). A distinctive characteristic of the disjunctive theory of perception lies in its rejection of the CFP (Fish 2010, 87), which holds that phenomenologically indiscernible veridical perceptions, illusions and hallucinations have an underlying mental state in common (Fish 2010, 4).

Secondly, I shall expound Martin’s phenomenal disjunctivism. An important aspect of his disjunctivist proposal is that it is designed to save ‘Naïve Realism’ (Martin 2004, 38) (NR for short). Martin considers NR to be the view that ‘mind-independent objects are present to the mind when one perceives, … [and] that when one has such experience, its object must actually exist and genuinely be present to the mind’ (Martin 2002, 393). In defence of the doctrine, he claims that NR is the ‘best articulation of how our experiences strike us’ (Martin 2004, 42) and appeals to an argument from phenomenal transparency (Haddock and Macpherson 2008, 13). Martin says:

At heart, the concern is that introspection of one’s perceptual experience reveals only the mind-independent objects, qualities and relations that one learns about through perception. The claim is that one’s experience is, so to speak, diaphanous or transparent to the objects of perception, at least as revealed to introspection. (2002, 378)

Martin here seems to have two rivals in mind that he attempts to undermine: namely, sense-datum theories holding that mind-dependent objects, sense-data, are perceived when one has experiences, and intentional theories maintaining that experiences have intentional contents that represent the world (Brewer 2011, 54; Martin 1994, 464). Martin assumes that the argument can offer some reasons to reject them. This is because, on the one hand, the former denies that ‘we have genuine awareness of objects in the world around us’ (Martin 2004, 42) and hence introduces a veil of perception; and on the other hand, the latter also contradicts with his idea that ‘our sense experience of the world is … non-representational’ (Martin 2004, 39) and the ‘objects of perception—the
concrete individuals, their properties, the events these partake in—are constituents of the experience’ (Martin 2004, 39). According to Martin, another motivation for saving the view arises from his solution to reconcile an inconsistency between NR, the CFP and ‘Experiential Naturalism’ (Martin 2004, 39) (EN for short), which suggests that ‘our sense experiences … are subject to the causal order, and in this case are thereby subject just to broadly physical causes … and psychological causes’ (Martin 2004, 39-40). The issue is as follows (Byrne and Logue 2009, xviii): given NR, at least one is in a veridical case, an object of the perception is a direct constituent of the one’s experience; given the CFP, however, the one could be under a threat of the possibility of hallucination, which is subjectively indiscriminable by its own introspection; and given EN, the one could also see the hallucinatory image of the object ‘through suitable manipulation of mind and brain’ (Martin 2006, 358), despite there being no such object at all. As Martin is in favour of defending NR, he then needs to rule out either the CFP or EN (Byrne and Logue 2009, xviii). Martin’s response to the problem is to simply exclude the CFP and to remain ‘committed to the broad empirical assumptions and methodological presuppositions which lead one to endorse’ (Martin 2004, 43) EN. A motivation for this rejection seems to be based on his observation that the opposing views of NR may also violate EN: the sense-datum theorists, for example, are often sceptical about the causal completeness of the physical and open to posit the existence of a range of strange items, which are extra to and outside what EN tells (Martin 2004, 43). Similarly, some of the intentional theorists, who are particularly called ‘phenomenology-first intentionalists’ (Fish 2010, 67) and hold that ‘experiences have representational content in virtue of their phenomenology’ (Fish 2010, 67), need to provide a they of the phenomenal features of the experiences, typically endorsing the existence of qualia, or intrinsic non-representational properties that are also additional to what EN explains (Fish 2010, 68; Tye 2013). In short, Martin’s strategy to argue for his phenomenal disjunctivism in defence of NR is to insist that experiences, involved in veridical perception, illusion and hallucination, belong to different ‘fundamental kind’ (Martin 2002, 404).

In this section, I shall explore philosophical advantages and disadvantages of Martin’s phenomenal disjunctivism.
One clear strength of the theory is that it can block, at least in the case of veridical experience, ‘scepticism about the external world’ (Logue 2012, 213). This is because Martin’s disjunctivist approach allows him to claim that what tells the phenomenal character of one’s experience in the case of veridical perception is entirely distinct from what explains it in the illusionary one (Haddock and Macpherson 2008, 16). In the former, it is told by actually perceived mind-independent objects; but, by contrast, in the latter case, there is no successfully perceived mind-independent objects, and the phenomenal character itself is simply explained by the fact that the perceptual state is introspectively indiscernible from another situation, in which the one veridically perceives such objects (Haddock and Macpherson 2008, 16). Martin says:

A common explanation is not offered of the three cases—we explain the veridical perception by reference to the relational properties it alone possesses, and we explain the other two by reference to their indiscriminability from this. So, the particular situation of veridical perception is fundamental to the explanation of the character of all cases of perceptual experience. (2002, 402)

Another benefit of his phenomenal disjunctivism is that it offers a metaphysically simpler account than other non-NR theories of perception, and it appeals to an ordinary intuition to perceptual experiences (Conduct 2006, 206-7). Comparing with the intentional theories of perception, Martin also asserts:

According to the disjunctivist, the phenomenological character of all perceptual experience requires us to view the transparency and immediacy of perceptual experience as involving actual relations between the subject and the objects of perception and their features. (2002, 402)

To sum up, Martin’s disjunctive theory of perception has its philosophical advantages in the two senses: on the one hand, it may close the sceptical gap between a perceiving subject and mind-independent physical objects in the external world by virtue of the direct, immediate and transparent contact of them in perception; and on the other hand, the ontological simplicity of the approach appeals to common-sense understanding of the nature of perceptual experiences.
A variety of objections, nevertheless, are available to his phenomenal disjunctivism. The first attack on Martin’s approach is a causal argument against disjunctivism, which is famously proposed by Howard Robinson (Soteriou 2014). According to Robinson’s formulation, this argument is a combination of what he calls the ‘original causal argument’ (Robinson 1994, 151) and the argument from hallucination, which can be stated as follows:

1. It is theoretically possible by activating certain brain processes involved in a specific type of perception to cause a hallucination which exactly resembles that perception in its subjective character (Robinson 1994, 151).

2. It is necessary to give the same account of both veridical perception and hallucination, when they have the same neural cause (Robinson 1994, 151).

So, from (1) and (2),

3. Perceptual processes in the brain produce an object of awareness, which cannot be identified with any features of the external world (Robinson 1994, 151).

In other words, the disjunctivist statement that veridical perception and hallucination are the different mental states or different ‘fundamental kind’ (Martin 2002, 404) potentially is in conflict with the prima facie causal facts about perceptual experiences (Fish 2010, 89). A possible response to the conviction is to simply deny the underlying principle that a same proximate cause creates a same immediate effect (Soteriou 2014). He can alternatively insist that in a case of veridical perception, even if an object of perception are distal causes of the subject’s phenomenal experience, they are also figure non-causally as essential constituents of it—the occurrence of the relevant brain processes are not sufficient to generate the kind of mental event involved in perception (Soteriou 2014). In spite of the reply being consistent with its denial of the RP, an issue left here is that rejecting the RP may contradict to what contemporary empirical sciences in general tell. The second influential critique is that the disjunctive theory cannot adequately account for subjective indistinguishability of changes in perceptual

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states (Byrne and Logue 2009, xix). Imagine that, for example, during one’s seeing an ordinary physical object such as a table, an evil demon removes the table from in front of the perceiver, whilst preserving its proximal neural effects in its brain (Byrne and Logue 2009, vii): the perceiving agent is surely incapable of detecting any changes ((Byrne and Logue 2009, xix). ‘Try as you might’ (Johnston 2004, 122), as Mark Johnston puts it, ‘you would not notice any difference, however closely you attend to your visual experience’ (Johnston 2004, 122). In this case, the perceiver’s pre-removal veridical experience is subjectively indiscriminable from the one’s post-removal experience of the hallucination (Byrne and Logue 2009, xix). The difficulty seems to naturally arise from Martin’s rejection of the CFP, and he, in fact, seriously takes this charge:

The challenge is just that, if something really is an essential aspect of the conscious or phenomenal character of an experience, the what is true of it should be true of any state of mind indistinguishable from it for the subject: for what more can there be to the character of conscious state of mind than a subject can herself discern when she reflects upon them? (2009, 98)

In short, there are two prominent disadvantages for Martin’s phenomenal disjunctivism: the former is that it faces the challenge from the causal argument against his theory; and the latter is that the disjunctivist cannot appropriately account for the problem of the subjective indiscernibility.

In conclusion, it is now evident that, though Martin’s phenomenal disjunctivism has the certain advantages, the theory itself seems to be rather philosophically problematic. This implies that there are three courses to go: firstly, one can elaborate to diagnose the disadvantages of the disjunctivist approach and defend the standpoint (Brewer 2008, 179; Fish 2008, 166); secondly, one can also abolish disjunctivism and pursue alternative frameworks—for instance, what Alex Byrne and Heather Logue call ‘moderate view’ (Byrne and Logue 2008, 69); and the last option, which I shall suggest, is to cast a serious doubt on the current philosophical fashion itself that divides human perception into the three categories and to found a new theory on the one united nature of perception.
Bibliography


